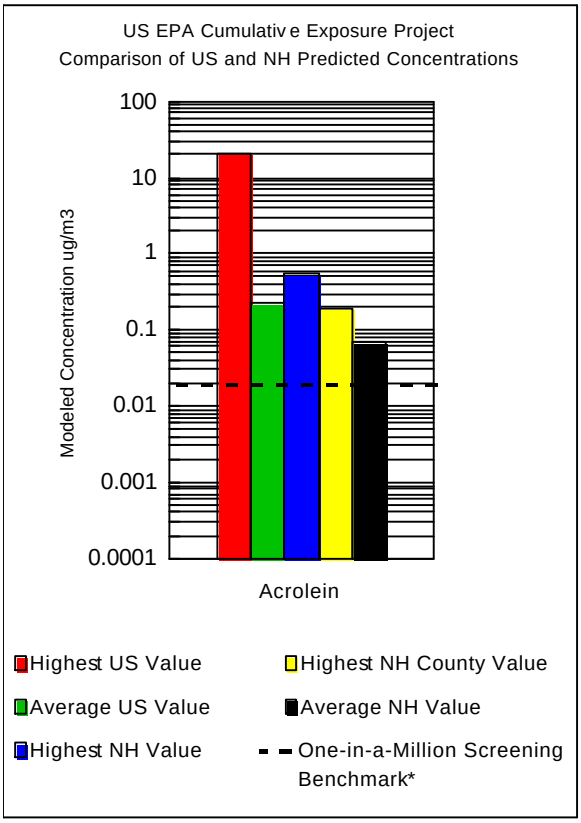
Health Effects Information for Toxic Air Pollutants of Concern in New Hampshire
(as identified in the US EPA Cumulative Exposure Project)

ACROLEIN



CEP Concentration Data (ug/m3)	
CEP Screening Benchmark*	0.020
CEP Background Concentration	n/a
Maximum US Concentration	20
Average US Concentration	0.23
Maximum NH Concentration	0.53
Maximum NH County Concentration	0.19
Average NH Concentration	0.068

NH CEP Concentration Comparison Summary	
Percent by wt. of all toxics evaluated in the CEP	0.46%
NH highest value as a % of US highest value	2.7%
NH average value as a % of US average value	30%
NH highest value as a % of US average value	234%
NH avg. as a % of CEP Screening Benchmark*	340%

Source Apportionment in NH**	
% contribution from Point Sources	0.4%
% contribution from Area Sources	52.5%
% contribution from Mobile Sources	47.1%

Overview of Health Effects
Possible carcinogen, based on observed increase in tumors (of the adrenal gland) in female rats exposed via the oral route and carcinogenic potential of an acrolein metabolite. Noncancer effects to tissues in the lung and nose. No evidence of birth defects in humans, however, such effects were observed in lab animals exposed to high doses by the oral route. Acute effects include watery eyes and soreness in the nose and throat.

Carcinogenicity Classification	
Possible Human Carcinogen	(EPA Group C)

* In developing the CEP, EPA established screening benchmark concentrations for each modeled toxic air pollutant below which there is likely to be no public health concern. To estimate potential cancer concerns, the CEP used a screening benchmark of 1-in-a-million excess risk of cancer. A risk level of 1-in-a-million means that one person out of one million equally exposed people would potentially contract cancer if exposed continuously (24 hours per day) to the specified concentration over 70 years (an assumed lifetime). This one case would be in addition to the number of cancer cases that would nornally occur in a normally exposed population of one million people.

** Source apportionment reflects the estimated contribution from each of the three source categories. Point sources include major industrial emission sources such as power plants and manufacturing plants. Area sources are typically smaller sources such as gasoline stations, dry cleaners, auto body shops, and the use of consumer products in the home. Mobile sources include emissions from automobiles, trucks and buses.